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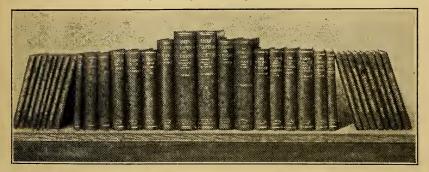
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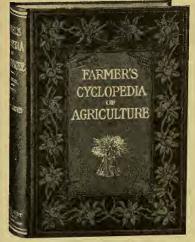
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A Compendium of Agricultural Science and Practice on Farm, Orchard and Garden Crops and the Feeding and Diseases of Farm Animals

By EARLY VERNON WILCOX, Ph.D., and CLARENCE BEAMAN SMITH, M.S.

Associate Editors in the Office of Experiment Station, United States Department of Agriculture



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Director of the Agricultural Experiment Station, Kansas State College



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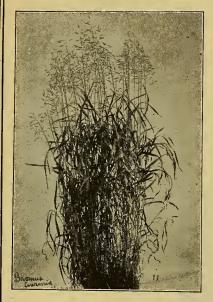
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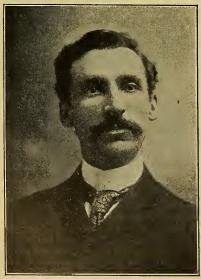
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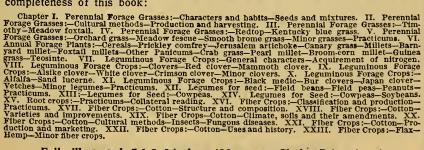
Professor of Agronomy in the New York State College of Agriculture at Cornell University

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By Joseph Harris. The cultivation of garden vegetables and flowers in the farm garden. A work intended to in-terest farmers' boys in farm gardening, which means a better and more profi-table form of agriculture. The teachtable form of agriculture. ings are given in the familiar manner so well known in the author's "Walks and Talks on the Farm." A share of the work is devoted to the easily grown flowers, which will add to its value in the estimation of the mothers and sisters as well as of the boys. Illustrated. 5x7 inches. 191 pages. Cloth. Price postpaid,....

A Book of Vegetables and Garden Herbs

By Allen French. Besides a description of each plant, its habit, value and use, the book contains detailed cultural directions for growing all vegetables cultivable in the northern United States, covering the soil, planting distances, times for sowing, thinning and transplanting, fertilizing, picking, By T. Greiner. This work embodies winter protection, renewal, storage, and the management of diseases and pests.

The American Apple Orchard

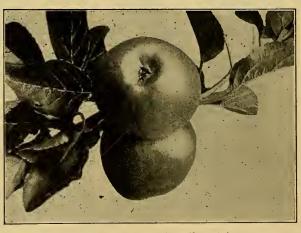
By F. A. WAUGH

THIS is just the book we have been looking for. There has been a strong and increasing demand these last ten years for a practical, pointed work on apple culture. Although there are a number of books on general fruit culture extant, they are not sufficiently definite and explicit for the ordinary reader. Our experience in the selling of books shows that a majority of buyers are interested in special crops in the care of which they want specific advice. It was in response to this demand that the Orange Judd Company began the publication of their list of popular "one crop" books.

Of all special crops in America, the apple is one of the most popular and profitable, and the call for a book on this subject has been particularly strong. After considerable planning and deliberation, we secured Prof. F. A. Waugh of Massachusetts to prepare this book for us. Professor Waugh is already well known as a writer of popular horticultural books, his "Dwarf Fruit Trees," "Landscape Gardening," "Plums and Plum Culture" and others having been for some years among our "best sellers." His books are always terse, snappy and readable. His preparation for the present work has been unusually broad and thorough, as he is personally and intimately acquainted in nearly every fruit-growing section of the United States and Canada. Furthermore, he is himself a practical fruit grower, operating extensive commercial orchards of his own. His practical experience in fruit growing, combined with long experience as a popular writer and teacher, enables him to present this subject in a manner both authoritative and attractive.

In this book chief prominence is given to modern commercial methods as practiced in large and up-to-date orchards, but there is a special chapter also

on the family chard. Methods are discussed, not for their theoretical value, but from the standpoint of the cash profits they will return. The book is pervaded throughout with the author's enthusiasm for fruit growing in general for the great apple industry in particular. It is well known that great advances have been made in recent years in the practice of fruit growing, and the author's position



has given him unusual opportunities forkeeping up with all such improvements.

The principal topics discussed are The Geography of Apple Growing, Apple Soils, Exposures, Windbreaks, Winter-Killing, Starting an Orchard, Propagation of Trees, Cultivation, Cover Crops, Pruning, Fertilizers, Insects, Diseases, Spraying Solutions, Spraying Machinery, Spraying Methods, Harvesting and Marketing, The Family Orchard, Renovation of Old Orchards, Selection of Varieties, Catalog of Varieties.

Illustrated, 5x7 inches, 226 pages. Cloth. Net, \$1.00

Systematic Pomology

Treating of the Description, Nomenclature and Classification of Fruits.

By F. A. WAUGH

Professor of Horticulture and Landscape Gardening, Massachusetts Agricultural College

THIS is the first and only work in the English language which treats on the entirely new field of Systematic Pomology. The subject comprises the systematic study of fruits, the practice of fruit growing, and the business of marketing fruits. The recent books, however, have all treated of the second division, namely, of the practice of fruit growing, while the other two divisions have been almost wholly ignored. Prof. Waugh gave



the first comprehensive treatise on commercial pomology two years ago in his Fruit Harvesting, Storing, Marketing. Now he presents a new work, entitled Systematic Pomology, covering the first of these neglected fields. The book treats exhaustively of the methods of describing fruits, of the perplexed systems of nomenclature, of the practical and scientific classification of varieties, of the scoring and judging of fruits, of the laboratory study of fruits, etc. A partial idea of the great value of this work may be gained from the outline of

TABLE OF CONTENTS

INTRODUCTION—Pomology in General.
DESCRIPTION—Making and Filing Descriptions, General Considerations, Describing Pome Fruits, Descripting Strawberries, Descripting Raspberries and Blackberries, Descripting of Currants and Gooseberries, Descripting Grapes.
NOMENCLATURE—The Requirements of Nomenclature, the Lazy Club Code, American Pomological Society Rules.
CLASSIFICATION—Principles of Classifica-

CLASSIFICATION—Principles of Classifica-tion, Classification of Fruits in General, the Classification of Apples, the Classification of Pears, the Classification of Peaches, the Classifica-tion of Peaches, the Classification of Pears, the Classification of Peaches, the Classification of Apples,

APPLICATION—Relation to the Practice of Fruit Growing, for the Teacher and the Student, Laboratory Work, Judging Fruits, Glossary.

The arrangement and treatment are such as to make the book particularly helpful to students and to all who want to learn more about pomology. It will be of great value as a textbook and laboratory guide, as a manual for committeemen in horticultural societies, and as a guide to nurserymen and fruit growers.

Illustrated, 5x7 inches, 288 pages. Cloth. Price, postpaid, \$1.00

Fruit Growing in Arid Regions

By WENDELL PADDOCK

Professor of Horticulture in the Colorado Agricultural College and Experiment Station

and ORVILLE B. WHIPPLE

Field Horticulturist in the Colorado Agricultural College and Experiment Station

The recent remarkable development of the vast areas of arid land in the Western United States has been both the cause and the result of new ideas in agricultural teaching. Conditions, not only varying widely among themselves but differing utterly from those of older cultivated regions, demanded the widest range of experiment, and resulted in the shattering of many cherished theories as well as the firmer establishment of many practices whose efficacy, under more familiar conditions, had seemed of doubtful value. The peculiar fitness of many of these arid lands for fruit-growing was long in becoming apparent, but their orchards have within comparatively recent years become a most important source of supply for both Eastern and foreign markets. The story of these years, as briefly told in the present volume, is one of great interest, and the ensuing mass of valuable agricultural teaching is set forth in detail. Every phase of fruit-growing with its local and other problems is thoroughly discussed, and no important agricultural opinion, even if differing from those held by the authors, is ignored. Soils, climates, fruit-diseases and pests, with their remedies, both preventive and curative, tools and apparatus of every sort are fully treated, and varieties of fruit likely to be successful, as well as those which have already proved their value, are minutely described. The illustrations are unusually abundant.

Illustrated. 5 x 7 inches. 395 pages. Cloth. Net \$1.50.

American Horticultural Manual

By J. L. BUDD, assisted by N. E. HANSEN

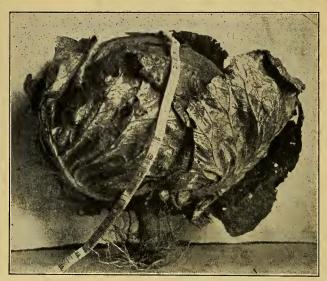
In this volume the author outlines the principles and practices of horticulture, reserving systematic pomology for a second volume. The principal chapters treat on seeds and seed growth; germination; circulation of flowers and fruits; propagation; principles of fruit-growing; transplanting; orchard management, pruning; spraying; the different classes of fruits treated separately; lawn and park trees; shrubs and vines; the vegetable and small fruit garden, etc., etc. To the beginner in horticulture who desires thorough and reliable information on its underlying principles the work can not be too highly recommended.

Illustrated. 5x7 inches. Cloth. Vol. I, 417 pages, \$1.50; Vol. II, 491 pages, \$1.50

Cabbage, Cauliflower and Allied Vegetables

By C. L. ALLEN

Author of Bulbs and Tuberous Rooted Plants from Seed to Harvest



HE author of this book has devoted a lifetime to the study of the sub-jects upon which it treats, and liv-ing on Long Is-land, in the very heart of the most favorable cabbage growing section in the United States, and being himself largely and practically interested in this industry, is probably more familiar with its various details than any other

Considerable space is devoted to the explanation of the requirements, conditions, cultivation and general management per-

management pertaining to the entire cabbage group. After this each class is treated separately and in detail. The chapter on seed raising is probably the most authoritative treatise on this subject ever published, and will be intensely interesting and valuable to all those engaged in this industry. Insects and fungi attacking this class of vegetables are given due attention, with a view to giving the reader the latest and most effective means for their prevention and destruction. There is a convincing and practical tone about the entire work which at once assures the reader of the safety in following the instructions given in its pages. tions given in its pages.

Illustrated 5x7 inches, 128 pages. Cloth. Price, 50 cents

Market Gardening and Farm Notes

By BURNET LANDRETH

LTHOUGH this work is entitled "Market Gardening," the family gardener will find all the instructions needed for gardening for pleasure as well as for profit, as it gives a vast amount of experiences and observations in the garden and field, of interest to the market and the amateur gardener, the trucker, and the farmer. A novel feature of the book is the calendar of farm and garden operations for each month of the year, indicating those which apply to each of the various sections and climates of North America. The chapter on the half-acre garden will be read with great interest by the amateur, while the chapters on seedsmen's novelties and responsibilities, manures and fertilizers, transplanting, succession and rotation of crops, celery and onion culture, and the packing, shipping and marketing of vegetables, will be especially useful to the professional market gardener. There are detailed plans and descriptions for hotbeds, cold frames and greenhouses. Gardening under glass for winter markets is treated in a thorough and businesslike way. The farmers will find the chapters on roots for stock feeding, on soils and fertilizers, on implements and storehouses, of special use in their daily operations.

5x7 inches, 215 pages. Cloth. Price, \$1.00

Asparagus

Its Culture for Home Use and for Market

A practical treatise on the planting, cultivation, harvesting, marketing and preserving of Asparagus, with notes on its history and botany

By F. M. HEXAMER



WHILE most works on vegetable growing treat briefly on asparagus culture, this is the first book published in America which is exclusively devoted to this subject. All are agreed that there is no more delicious vegetable than properly grown and prepared asparagus. Yet it is but rarely found in our gardens, owing principally to the erroneous idea that its planting and after management are expensive and require special skill and knowledge. To disprove these fallacies, and to impart reliable and rational information on the improved and simplified modern methods of raising this peerless gem of the home garden, is the principal object of this work.

In successive chapters the author treats exhaustively on the saving of the seed, raising of the plants, selection and preparation of the soil, planting, cultivation, manuring, cutting, bunching, packing, marketing, canning and drying, insect enemies, fungous diseases and every requirement to successful asparagus culture, special emphasis being given to increase the importance of asparagus as a farm and money erop. As no garden is complete without an asparagus bed, so is no gardener's or farmer's library complete without this interesting and instructive book.

Handsomely illustrated, 5x7 inches, 174 pages. Cloth. Price, 50 cents

The New Rhubarb Culture

A Complete Guide to Dark Forcing and Field Culture

PART I.—By J. E. Morse, the well-known Michigan trucker and originator of the now famous and extremely profitable new methods of dark forcing and field culture. After a short historical sketch of the plant, the author explains and describes in a clear and concise manner every detail connected with the industry.

The forcing place; the commercial cellar; the house cellar; cellars with hard floors; grown in hotbeds; growing in greenhouse; a cheap forcing cellar; nooks and corners; work of forcing; starting the work; forcing season; two crops in one cellar; setting the plants; handling the roots; age of roots for forcing best varieties; how to succeed; heating; as to temperature; ventilation; light; moisture; fertilizing; thinning out; handling the crop; time of maturing; gathering the crop; tying up; marketing; fertilizers; light or thin soils; barnyard manures; binders; acidity of soil; nitrate of soda; Jadoo fiber; culture; soil; preparation; propagation; unforced roots; forced roots; plants for setting; growing from the seed; tillage; comparison of old and new methods; future outlook; magnitude of forcing industry; creating demand; benefits; how to use rhubarb; etc., etc.

Part II.—By G. B. Fiske. In this are described and illustrated other methods practiced by the most experienced market gardeners, greenhouse men and experimenters in all parts of America; sash houses and cold frames; hot water system; steam forcing in open fields; exhibition stalks; home methods; varieties and station tests; the leading sorts described; range of adaptation; northern limits; new seedlings; work of the experiment stations; hints and helps; for early market; insects and blights; culture of medicinal rhubarb; pieplant for home use; seed raising; food value; fertilizing constituents: irrigation, etc., etc.

Copiously illustrated from photographs and sketches made exclusively for this work. The only complete, practical, scientific and up-to-date manual on this crop.

5x7 inches, 130 pages. Cloth. Price, 50 cents

Celery Culture

By W. R. BEATTIE

Bureau of Plant Industry, United States Department of Agriculture



PRACTICAL guide for begin-ners and a standard reference of great interest to persons already

great interest to persons already engaged in celery growing. It contains many illustrations giving a clear conception of the practical side of celery culture.

This book is the result of many years' experience in celery growing both for home use and for market. The author has also had the benefit of acquaintance with many of the most successful celery growers, and has had abundant opportunity to study their methods. The work is complete in every detail, from sowing a few seeds in a window box in the house for early plants, to the handling and marketing

Fully illustrated, 5x7 inches, 150 pages. Cloth. Price, 50 cents

TOMATO CULTURE

By WILL W. TRACY

United States Department of Agriculture

THIS is a practical treatise on the tomato, which includes its history, characteristics, methods of planting, fertilization, cultivation in field and greenhouse, points about harvesting, packing, storing, and marketing, as well as the most complete account of the insects, enemies and diseases which attack tomatoes, and remedies for their control that has ever been written. The author has made a lifelong study of this important vegetable and has here embodied for the first time a complete story of his experiences. Because of the increasing popularity of the tomato for general and popular use, this book is especially timely and important. It deals with every phase of the subject. It includes chapters devoted to the home garden, hotbed, greenhouse and large areas for commercial purposes. Every detail is treated under the following heads: Botany; history; general characteristics; essentials for development; selection of soil for maximum crop; exposure and location; fertilizers; preparation of the soil; hotbeds and cold frames; starting plants; proper distance for planting; cultivation; staking, training and pruning; ripening, gathering, handling and marketing; adaptation of varieties; seed breeding and growing; production for canning; cost of production; insects injurious to tomatoes; tomato diseases. The book is written in the most popular style for the man who wants the latest and most complete information on the subject.

Illustrated, 5x7 inches, 150 pages. Cloth. Price, 50 cents.

Illustrated, 5x7 inches, 150 pages. Cloth. Price, 50 cents

Peas and Pea Culture

By GLENN C. SEVEY, B.S.

Editor New England Homestead

THIS interesting little book is intended for the student and practical farmer allke. Enough of the scientific has been provided to meet the demands of the former, and for the farmer great care has been exercised to keep details true to field con-The author brings both experience and observation to bear on the subject-Botany, history and distribution constitute one chapter. Another deals with soils, fertilizers and inocculation. Cultural principles constitute Chapter III, with composition and feeding value as Chapter IV. Chapter V deals with insect and fungous pests; VI goes thoroughly into the canned pea industry; VII, peas as forage and soiling crops; VIII, breeding and seed improvement; IX, garden peas and varieties, with the concluding chapter, X, on sweet peas and their culture. The various experiments and deductions of different experiment stations and seed authorities are carefully reviewed and brought together in a workable way. Without this book a student would be required to spend hours going through various files and references to secure all the data on any one phase of the subject of peas and pea culture. An honest effort has been made to provide comprehensive, authoritative and specific information on the whole subject of peas. Facts are tersely stated, and readers will find the book an ever-ready and convenient authority on the many details connected with the crop.

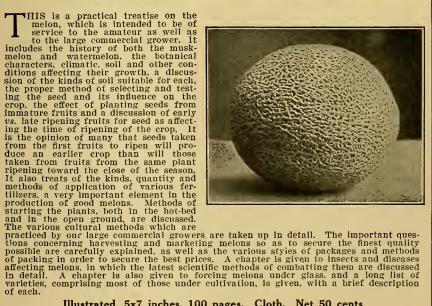
Illustrated, 5x7 inches, 120 pages. Cloth. Net 50 cents

Melon Culture

By JAMES TROOP

Professor of Horticulture and Entomology, Purdue University

HIS is a practical treatise on the



of each.

Illustrated, 5x7 inches, 100 pages. Cloth. Net 50 cents

Gardening for Profit

A guide to the By Peter Henderson. successful culture of the market and in the largest quantities and in the finest be regarded by all, as one of the best works on Market and Family Gardening all the latest improvements in this ever published. The scope of the present edition of "Gardening for Profit" branch of agriculture up to the present culture of all small fruits which properly of production and profits, etc. come under the head of "Gardening for Profit." Although this book is written mainly for the market gardener, the amateur interested in vegetables or fruits can easily adapt its teachings to the smallest requirements. Illustrated. 5x7

Money in the Garden

distinct, although closely connected branches of gardening—the kitchen garden, the market garden, and field culture, from successful practical experi-Illustrated. 5x7 inches. 268 pages. Cloth.....\$1.00

The Principles of Vegetable Gardening

By L. H. Bailey. This book discusses fully the underlying questions regarding soils, fertilizing, tilling, storing, marketing, controlling insects and diseases, and other vital present-day problems. It treats the general subject of truck gardening and market gardening; also the home garden. Particular attention is given to hotbeds and cold frames; also to seeds and seed growing. Illustrated. 458 pages. Cloth. 5x7 inches. Net \$1.50

Success in Market Gardening

A vegetable By W. W. Rawson. growers' manual. Part I treats on location, drainage, irrigation and fertilizers, selection, vitality and sowing of seeds, cultivation of crops, construction and operation of hotbeds and greenhouses, gathering of crops, capital and labor. Part II is devoted to special crops raised for market, tools and other requisites, pumping outfits, electric light, insects and fungi and their preventives, etc., etc. Illustrated. 5x7 inches. 240 pages. Net \$1.10 Cloth..

The A B C of Potato Culture

By W. B. Terry. How to grow them family garden. This volume cannot but qualities with the least expenditure of time and labor; carefully considering has been greatly extended, embracing date. Its principal chapters treat on as it does, not only the forcing of all soils, manures, planting, selection and important fruits and vegetables under care of seed, cultivating and hoeing, glass, but also detailing the methods of digging, storing, varieties, rotation, cost Paper. \$0.45

Talks on Manures

By Joseph Harris. There is scarcely an opinion relative to fertilizing soils, inches. 376 pages. Cloth. Price \$1.50 including special manures for special crops, that is not treated in this authoritative and comprehensive work. While the teachings are founded upon By P. T. Quinn. A vegetable manual the most elaborate scientific researches prepared with a view to economy and they are so far divested of technical profit. The author gives, in a plain, language to commend themselves to practical style, instructions on three farmers as eminently practical. It is not often that the results of scientific investigations are presented in a manner so thoroughly popular. The chapter specially written for this book by Sir John Bennet Lawes gives additional value to this work. Illustrated. 5x7 inches. 366 pages. Cloth.....\$1.50

The New Onion Culture

By T. Greiner. A complete guide in growing onions with the greatest profit, explaining the whys and wherefores. Clear and minute directions are given of how the plants are grown; the cold frame; seed bed; planting; fire hotbed; hotbed heated by steam; cheap greenhouse for market gardeners; greenhouse heated by hot water; quantity of seed required; time of sowing; varieties; what soil to select; how to manure and prepare it; onions on muck soil; clean soil essential; how the plants are set in the ground; tillage as moisture preserver and weed killer; tools of tillage; when and how to harvest the crop; danger in delay; signs of maturity; curing the crop; curing sheds; weight of crop; wintering onions; advantages and profits of the new way; estimation of cost and returns. In order to enable the reader to compare the advantages of the new with the old methods of onion culture, an extensive appendix is devoted to the latter. Illustrated. 5x7 inches. 140 pages. Cloth..........

Vegetable Gardening

By R. L. WATTS

Professor of Horticulture, Pennsylvania State College

HIS complete, concise and authentic book every phase of vegetable gardening and is specially well organized as a text-book and equally valuable as a hand-book for practical growers. It is the only volume on vegetable gardening the scheme of which is in accordance with the recommendations of the association of American agricultural col-The logical and systematic arrangement of the matter enchances the value of the book for students as well as for busy commercial growers who need a well-organized treatise for frequent reference.

The bulletins of the experiment stations of the United States Department of Agriculture and various books and



periodicals relating to garden crops were frequently consulted during the preparation of the manuscript, while at the same time the experience of successful growers is woven into every chapter. The book brings up to date the most reliable information on vegetable gardening and the full discussion of principles makes it valuable to all classes of growers whether they are producing for the home table or for market. To procure first-hand knowledge regarding varieties and methods, many market gardens and truck farms were visited in different parts of the United States. This made it possible to obtain photographs which have been used freely to illustrate the various chapters.

An idea of the scope and completeness of the book may be gained by noting the following subjects, each of which has been treated in a separate chapter: A General View, Selection of Location, Soils, Tillage, and Tillage Tools, Stable Manures, Green Manures and Cover Crops, Commercial Fertilizers, Irrigation, Insect Enemies and Fungous Diseases, Seeds and Seed Growing, Construction of Hotbeds, Construction of Cold Frames, Construction of Greenhouses, Seed Sowing, Transplanting, Growing Early Vegetable Plants Under Glass, Marketing, Co-operative

Associations, The Storage of Vegetables, and the Classification of Vegetables.

One-half the book is devoted to a discussion of the culture of the vegetables grown in the United States and Canada. The list includes the Artichoke, Bean, Beet, Brocoli, Brussels Sprouts, Cabbage, Carrot, Cauliflower, Celery, Chard, Chicory, Chive, Collard, Corn-salad, Cress, Cucumber, Dandelion, Dill, Eggplant, Endive, Garlic, Horse-radish, Kale, Kohl-rabi, Leek, Lettuce, Mint, Muskmelon, Mustard, Okra, Onion, Parsley, Parsnip, Pea, Pepper, Pumpkin, Radish, Rhubarb, Ruta Baga, Sage, Salsify, Savory, Spinach, Squash, Sweet Corn, Sweet Potato, Thyme, Tomato, Turnip, and Watermelon. There are also chapters on Crop Rotation, Succession and Companion Cropping, and Home Vegetable Garden and Suggestions on Laboratory Work.

Profusely Illustrated, 51/2x8 inches. 550 pages. Cloth. Net, \$175

Celery for Profit

By T. Greiner. An exposé of modern methods in growing celery. Methods by which the cost of production of first quality celery is very materially reduced are exhaustively described and fully explained. Paper.....\$0.20

Tomato Culture

By J. W. Day, D. Cummins and A. I. Root. In three parts. Part I—Tomato Culture in the South. Part II—Tomato Culture, Especially for Canning Factories. Part III—Plant Growing for Market and High Pressure. Gardening in General. A practical book for those who work under either glass or cloth as a protection from frost. Illustrated. Paper\$0.35

Sweet Potato Culture

By James Fitz. A monograph on the sweet potato, giving full instructions from starting the plants to harvesting and storing the crop, with a chapter on the Chinese yam. Every detail pertaining to soils, manures, propagation, planting, cultivation, harvesting, keeping and profitable marketing of this crop is clearly and fully described and explained. 5x7 inches. 86 pages. Cloth \$50.50

Gregory on Cabbages; How to Grow Them

By James J. H. Gregory. A practical treatise on cabbage culture, giving full details on every point, including keeping and marketing the crop. Paper. \$0.30

Gregory on Carrots, Mangold-Wurzels, etc.

By J. J. H. Gregory. How to raise them, how to keep them, and how to feed them. Paper\$0.30

Gregory on Onion Raising

Gregory on Squashes

By J. J. H. Gregory. This treatise tells all about selecting the soil for squashes; how much manur: is necessary; how to prepare and plant; about hoeing and cultivating; setting of the fruit; ripening, gathering, storing, care during winter, etc. Paper.....\$0.30

Onions; How to Raise Them Profitably

Practical details, from selection of seed and preparation of ground to harvesting and marketing the crop, given very plainly by seventeen practical onion growers of long experience residing in different parts of the country. Paper\$0.20

Truck Farming at the South

By Dr. A. Oemler. A guide to the raising of vegetables for northern markets. Full cultural directions are given, and the methods of packing the produce for the different markets. The work throughout gives evidence that the author is not only a practical cultivator but that he is an enthusiast who loves his occupation. Illustrated. 5x7 inches. 274 pages. Cloth.......\$1.00

The Forcing Book

By Prof. L. H. Bailey. In this work the author has compiled in handy form the cream of all the available information on the subject of forcing vegetables under glass. In addition to this, the experience of many practical growers in different localities is furnished. Illustrated. 5x7 inches. 266 pages. Cloth. Net \$1.25

How to Grow Melons

This booklet treats of both Musk-melons and Watermelons, with full information on the selection of soil, use and application of manures, selection of varieties, planting the seed, destruction of insects, notes on cultivation, how to grow extra large melons, etc., etc. Paper\$0.20

Vegetable Gardening

By S. B. Green. A manual on the growing of vegetables for home use and marketing. It is brimful of practical information and is carefully and concisely written. The chapter on manure is of especial value. Illustrated. 5x7 inches. 224 pages. Cloth.....\$1.00

Southern Gardener's Practical Manual

By J. S. Newman. The object of this work is to furnish a reliable, practical guide to those who desire to avail themselves of the wonderful facilities afforded by our sunny Southland for supplying the family table with fresh vegetables from the kitchen garden every day in the year. Illustrated. 5x7 inches. 220 pages. Cloth. \$1.00

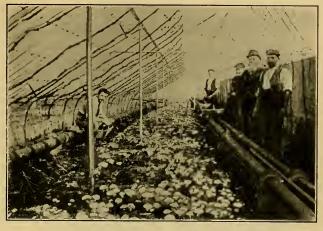
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MUSHROOMS HOW TO GROW THEM

A Practical Treatise on Mushroom Culture for Profit and Pleasure

By WILLIAM FALCONER

HIS is an e m i n ently practical book by a practical man who is a specialist in the cultivation o f mushrooms, one of the and most successful growers in the country. It appeals to every urban and suburban resident as well as to farmers, for anyone who has an ordinary house cellar, woodshed or barn can grow mushrooms. For home use fresh



mushrooms are a delicious, highly nutritious and wholesome delicacy; and for market they are less bulky than eggs, and, when properly handled, no crop is more remunerative.

It is the most practical work on the subject ever written, and the only book on growing mushrooms ever published in America.

The whole subject is treated in detail, minutely and plainly, as only a practical man actively engaged in mushroom-growing can handle it.

The author describes how he himself grows mushrooms, also how they are grown for profit by the leading market gardeners, and for home use by the most successful private growers.

The book is amply and pointedly illustrated, with engravings drawn from nature expressly for this work.

The following condensed table of contents gives an idea of the scope and completeness of the work:

Those Who Should Grow Mushrooms:-Market gardeners—Florists—Private gardeners—Village people and suburban residents—Farmers—Women on the farm.

Growing Mushrooms in Cellars: — Under-ground cellars—Dwelling house cellars— Barn cellars—How various market gardeners grow them in cellars.

Growing Mushrooms in Mushroom Houses:— The different kinds of mushroom houses.

Growing Mushrooms in Sheds.

Growing Mushrooms in Greenhouses.

Growing Mushrooms in the Open Field.

Manure for the Mushroom Beds:-Different kinds of manure-Other materials besides manure.

Preparation of the Manure, etc.

Making up the Beds.

Mushroom Spawn:-What it is, and how to make it, use it, or keep it.

Proper Temperature and How to Maintain It. Caring for the Beds Before and After They Begin Bearing.

Gathering and Marketing the Mushrooms.

Stimulants to Use and When and How to Apply Them.

Insect Pests and Diseases, and How to Mitigate Them.

How Mushrooms Are Grown in the London Market Gardens.

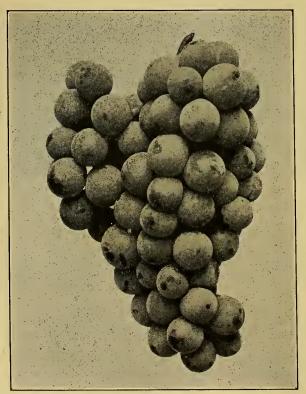
How Mushrooms Are Grown in the Paris Caves How to Cook Mushrooms:—Make ketchup of them, pot them, dry them and make powder of them.

Illustrated, 5x7 inches, 169 pages. Cloth. Price, \$1.00

Foundations of American Grape Culture

By T. V. MUNSON, D.Sc.

Practical Grape Breeder, Vineyardist, Botanist and Nurseryman



THE author of this work has a world-wide reputation among vineyardists, horticulturists and plant-breeders for his great services in viticulture and other fruit culture.

The title of the book indicates the scope of its treatment. subject matter is handled under the various chapter divisions of: Botany of Grapes; Breeding of Grapes for every Soil, Climate and Purpose; Selection of Varieties for Vineyard Planting for Different Regions North and South; Descriptions and life-size half tone illustrations of the leading varieties for each region; Select-ing, Preparing and Planting the Vineyard Site; Trellising, Pruning and Training; Fertilizing, Cultivating, and Protecting the Vineyard from Diseases and Insects; Harvesting and Marketing; Propagation by Cuttings, Layerings,

and Grafting. In every part of the work the best, only, of up-to-date methods are given. It is original, clear and practical, and besides being the most accurately scientific, clear and practical work upon American grapes suited to all sections of the country, its numerous, some 90 full-page, fine grade, life-size half-tone plates, the fine paper and substantial beautiful binding will make it an ornament in any library. It will be a fine money maker to every practical vineyardist who reads it, and a delight and helpmate to every home that grows a few vines about the house, on the trees, on walls or arbors, or garden trellis. It will make one of the best text books for study in Agricultural Colleges and High Schools where horticulture may be taught.

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American Grape Growing and Wine Making

By GEORGE HUSMANN

THIS latest edition is practically almost an entirely new work. The complete management of the grape in the garden as well as in the most extensive vineyards, from the planting of the vine to the harvesting of the fruit, is given in detail, according to what are now considered the best methods. As the vast extent of our country and its varying conditions of soil and climate make it impossible to give directions suitable for all sections, the author has called to his aid the most prominent authorities and most experienced vine-yardists in all the various grape districts of the United States. The second part of the work is entirely devoted to these locality reports, which are of inestimable value to the grape growers living within the respective areas.

The chapters on wine making form a complete manual in themselves, describing all the various details of this rapidly increasing industry. As the author is one of the most experienced wine makers in America and a recognized authority on the subject this part alone makes the volume indispensable to all

authority on the subject, this part alone makes the volume indispensable to all

engaged in this industry.

In order to make the work national in its scope, a considerable part is devoted to grape growing and wine making in California, a subject of which the author has made a specialty for a lifetime.

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Chorlton's Grape Growers' Guide

By WILLIAM CHORLTON

HANDBOOK of the cultivation of the exotic grape, intended especially for the American climate; a practical treatise on the management of the grapevine under glass. After general introductory remarks the author gives detailed descriptions of graperies and conveniences, artificial heat and apparatus, preparation of borders, planting and management for the first year, and permanent treatment for the cold grapery, forcing houses and retarding houses, pot culture, pruning and training, propagation and the raising of new kinds, injurious insects and fungi, lists of exotic and native varieties, etc.

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My Vineyard at Lake View

HIS book is especially valuable as giving an account of the processes actually followed in celebrated grape regions in Western New York and on the shores and islands of Lake Erie. It tells just what the beginner in grape culture wishes to know, with the charm that always attends the relation of personal experience.

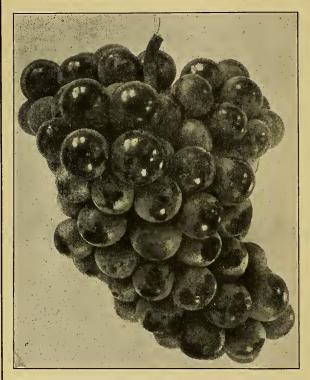
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Grape Culturist

A Treatise on the Cultivation of the Native Grape

By ANDREW S. FULLER

Author of "Small Fruit Culturist," "Propagation of Plants," "Practical Forestry, " Etc.



THIS book on grape culture has had a very large sale for many years, and has by common consent been given the palm for practi-cal value and usefulness. The new edition has been found necessary because of the rapid strides which have been made in viticul-

have been made in viticulture in the past few years.
The present edition, materially enlarged, is decidedly up-to-date.
All the discoveries, pertaining to materials and
methods of applying them
for the purpose of resisting the various fungous
diseases which have been
so disastrous to grape cul-

diseases which have been so disastrous to grape culture, receive attention in this new edition.

The list of standard grapes is carefully revised and a large list of the more recent, but as yet unestablished varieties, is circumfor an editartion.

recent, but as yet mestablished varieties, is given for consideration.

It is a complete vade mecum for anyone contemplating grape growing, and no vineyardist, no matter how long his experience, can afford to be without it.

Chapters on growing from seed, on the various methods of wood propagation, layering, gratting, character of soils which are best for vineyards, trellising, pruning, culture, etc, are complete and interesting.

CONTENTS

Chapter I-Botanical Characteristics of the Grape.
Chapter II—Growing from Seed.
Chapter III—Propagation by Single Buds.
Chapter IV—Cuttings of Unripe Wood.
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Chapter VIII—Grafting the Vine.
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Chapter IX—Hybridizing and Crossing.
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Chapter XI—Stem Appendages.
Chapter XII—Stem Appendages.
Chapter XIII—Planting the Vine. Grape.

Chapter XIV—Grape Trellises.
Chapter XVI—Garden Culture.
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and Pruming.
Chapter XVIII—Miscellaneous.
Chapter XIX—Insect Enemies of the Grape.
Chapter XXI—Description of Varieties.
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Citrus Fruits and Their Culture

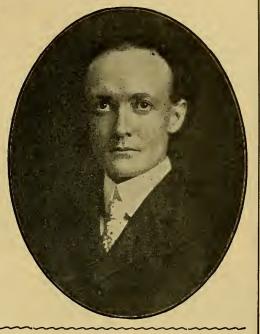
By H. HAROLD HUME

Professor of Horticulture and Botany in the University of Florida. Horticulturist and Botanist of the Florida Agricultural Experiment Station

URING the past quarter of a century no work treating on the fruits of the genus citrus has been produced. The literature has not kept pace with the growth, the development, and the new phases of the industry. Yet during this period great changes have taken place in the principles of citrus fruit culture in America. A few decades since the annual crops were but insignificant, while now the citrus industry has attained a place among the large horticultural industries of the country. To apply the long-felt want of

To apply the long-felt want of an up-to-date work, giving reliable and authoritative information on the subjects, the author has prepared the present work in which he has the co-operation and assistance of the foremost specialists in the country. Every part of the subject is treated with the author's usual thoroughness, special chapters being devoted to Botany, History, Varieties, Culture, in all their details; Diseases and Insects; Literature, etc., etc. The work is richly illustrated with 124 engravings, and embellished by 36 handsome plates.

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The Cider Makers' Hand Book

A Complete Guide for Making and Keeping Pure Cider By F. M. TROWBRIDGE

PURE cider is one of the most healthful and pleasant beverages that man can use. It is the pure juice of the apple fermented just as wine is, but containing much less alcohol and no tartaric acid at all, the place of the latter being naturally supplied by the malic acid of the apple. Excellent as pure cider is, it is difficult to procure it either from wholesale or retail dealers. The stuff sold for pure cider is often some villainous concoction which ought to be prohibited by law; and most of the other cider sold is made either from bad apples or by incompetent persons, and therefore is either bad from the beginning or else is spoiled through the carelessness or ignorance of the maker. In a great country like ours, where apples are produced in such overwhelming abundance, good cider ought to be plentiful and cheap, and yet at the same time be remunerative to the makers. The Cider Makers' Hand Book is a complete guide for making and keeping pure cider, by a practical man of great experience in the business. It should be in the hands of all apple growers and dealers who handle large quantities of fruit. Our mechanical intelligence has brought the necessary appliances for cider-making to great perfection; yet we learn that three-fourths or more of all the cider made is spoiled either in the process of making or immediately after becoming cider, a fact which is attributed to a general lack of information of the plain, practical and simple requirements to be observed in the making and keeping of cider, rather than to any other cause. To correct some of the erroneous theories now accepted by those engaged in Cider Making, and to be to others a Hand Book of Practical Instruction is the object of this most valuable work. No treatise on this art has been published in many years, and it will be welcomed by thousands as a Standard Authority of practical information, based on exact scientific facts.

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Dwarf Fruit Trees

Professor of Horticulture and Landscape Gardening, Massachusetts Agricultural College

OTHING more striking has occurred in the development of agricultural affairs during the last decade than the rise of the amateur spirit. There are now thouduring the last decade than the rise of the amateur spirit. There are now thousands of people to whom farming or gardening is a pastime or recreation. Many others, while still cultivating the soil for financial returns, confess that the money thus earned is the smallest reward for their labor. Everywhere there are village gardens, suburban home lots and private estates. The very type and model of all the operations on all these places is to be found in the garden of dwarf fruit trees. The suburban lot which would be crowded with two or three common Baldwin apple trees can easily accommedate forty or fifty dwarf trees having apples. apple trees can easily accommodate forty or fifty dwarf trees bearing apples, pears, plums, peaches, nectarines, and the whole lot of hardy fruits.

These dwarf trees have a very great advantage further in the fact that they come into bearing very early. One has to wait ten years for fruit from a common apple tree, while a dwarf tree of the same variety will bear in three years. The fruit is

also of the highest quality.

Even in strictly commercial operations the dwarf trees have their place. They make the best of "fillers" for temporary planting between permanent standard trees in a new orchard, and there are some commercial orchards of dwarf trees, particular-

In a new orenard, and there are some commercial orenards of dwarf trees, particularly of pears, long and favorably known in America as profit yielding enterprises.

All these advantages are enthusiastically set forth in Professor Waugh's new book. What is more important the book also tells, in detail, how these advantages are to be secured. In pleasing and readable style the propagation of the trees is described, their planting, pruning, care and general management. The work as a whole is eminently practical and timely. It is fully and handsomely illustrated and substantially bound in cloth.

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Successful Fruit Culture

A Practical Guide to the Cultivation and Propagation of Fruits.

By SAMUEL T. MAYNARD, B.Sc.

HIS book is written from the standpoint of the practical fruit grower who is striving to make his business profitable by growing the best fruit possible and at the least cost. It is up-to-date in every particular, and covers the entire practice of fruit culture. It gives in plain, practical language, descriptions of such varieties as are most in demand in our markets, and the method practiced by the most successful cultivators of many sections of the country. It deals with principles first and with the practice afterwards, as the foundation principles of plant growth and nourishment must always remain the same, while practice will vary according to the fruit grower's immediate conditions and environments. Separate chapters are devoted to the apple, pear, peach, apricot and nectarine, plum, cherry, quince, mulberry, grape, blackberry, raspberry, cranberry, blueberry, huckleberry, subtropical fruits, propagation of fruit trees and plants, fruit growing under glass, insect pests, and fungous diseases. The chapter on the apple is particularly comprehensive and complete, forming a monograph in itself. It treats very fully on the soil best suited to its growth, trees for an orchard, digging the holes, preparing the trees for planting, establishing the head, time for planting, ture culture, green manuring or cover crops, mulching, pruning, thinning fruit, age of bearing, regrafting old trees, varieties, gathering apples, assorting apples, packages and packing, marketing apples, storing apples, cold storage houses, etc., etc. With like thoroughness the other kinds of fruits are discussed.

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Peach Culture

By JAMES ALEXANDER FULTON

REVISED EDITION

THE various works published on fruit culture treat of the peach as they do of other fruits, in a general way, but until the appearance of Judge Fulton's book there was nothing that gave the operations of peach culture as a business. Living in the center of one of the greatest peach growing districts in the world, he was enabled to give every detail, and to furnish a complete guide to those who would embark in the peach culture. During the years that have passed since its first appearance, while there have been few improvements in the general operations of the nursery and orchard, there have been many new varieties introduced. During this time there has been a marked improvement in the early varieties of the peach, and the introduction of these, and the discarding of others, have made it necessary to rewrite this portion of the work. In its present revised form the volume is the only practical guide to peach culture as followed on the Delaware Peninsula, and essential to those who would undertake the cultivation of this fruit in any other part of the United States.

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Cranberry Culture

Natural History, Cultivation, Management, Etc.

By J. J. WHITE

MILLIONS of dollars are spent annually by the American people for cranberries. Properly managed, there is not a more profitable industry than the cultivation of this fruit. "Cranberry Culture" is a practical treatise on the subject and should be in the hands of everyone who expects to embark in cranberry growing. It tells all about cultivation, choice of location, preparation of the ground, planting the vines, management of meadows, flooding, enemies and difficulties, picking, keeping, profit and loss, and every other detail connected with the business. The work also gives full account of the different varieties in cultivation and it is regarded as the most complete and satisfactory of the many special treatises on fruit culture. The directions are admirably full and clear, and the author has anticipated every difficulty the novice is likely to encounter.

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The American Fruit Culturist

By JOHN J. THOMAS

Revised and Enlarged by W. H. S. WOOD

In ITS present form this standard pomological work is practically a new book, containing practical directions for the propagation and culture of all the fruits adapted to the United States. Numerous chapters have been added upon subjects which have become of practical value and of vital importance to all would-be fruit growers. The chapter on insects and diseases has been greatly extended, the section treating of the varieties of the different kinds of fruits has been very thoroughly revised so as to include all the approved newer sorts; and new chapters have been added on nuts, wild fruits and sub-tropical fruits. All illustrations of fruits are from average-sized specimens, and are life size unless otherwise definitely stated. A systematic classification has been adopted for the principal fruits. By placing them under separate and characteristic heads, the cultivator is enabled to distinguish and remember each sort with more readiness than where all are thrown indiscriminately together. The distinguishing characteristics of this work are: I. The arrangement of the chapters. II. The systematic classification of most of the large fruits, and more especially of the apples and pears. III. The condensed descriptions of fruits, which have been mostly taken from the ripened specimens. IV. The copious illustrations of the various operations. No other work of its character has enjoyed the popularity of this one, which has now been brought up to the most recent standard.

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Barry's Fruit Garden

By P. BARRY



HIS standard work upon Fruit Culture is written from the practical experience of the widely known author who for half a century has been universally recognized as one of the most successful nurserymen, and best informed and most re-nowned pomologists of America. It explains all the minutiæ of fruit culture, and demonstrates how the industry of our times is peculiarly distinguished by the application of science—the union of theory with practice in every depart-The author is fully sensible of the importance that the work of the fruit grower should be done intelligently and understandingly, and that without a full knowledge of the minutiæ and practical details of culture success cannot be expected. Therefore, before entering upon the main subject, he describes in as few and as plain words as possible the structure, character, connection and respective offices of the various parts of fruit trees and

the names by which each is known in practice.

In the lists and descriptions of varieties the main object aimed at is to bring to the notice of cultivators the best varieties, those which ample experience has proved to be really valuable, as nothing is more embarrassing to the inexperienced cultivator than long lists. The arrangement of varieties under the heads of Summer, Autumn and Winter will materially assist the reader in selecting varieties ripening at particular seasons, while the terms early or late summer, etc., in place of the month, is because of its better application to the various states and sections of states.

The entire plan of the work is so admirable and the manner in which all the details are treated so clear and concise as to make it invaluable to anyone who would become fully informed upon the subjects of which it treats. For the sake of convenient reference the different branches of the subject have

been separated into four parts:

PART I.

General Principles—Names, Descriptions and Offices of the Different Parts of Fruit Trees; Soils; Manures; The Different Modes of Propagating; Pruning—Its Principles and Practice.

PART II.

The Nursery-Soil, Situation, etc.

PART III.

The Laying Out, Arrangement and General Management of Permanent Plantations of Fruit Trees, Selection of Trees and Varieties, and Pruning and Conducting Trees Under Various Forms.

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HARVESTING FRUIT

MARKETING

By F. A. Waugh

A Practical Guide to the Picking, Storing, Shipping and Marketing of Fruit

HILE there are many books on the growing of fruit, this is the first one on the equally important work of handling and selling it. The principal subjects covered are the fruit market, fruit picking, sorting and packing, the fruit storage, evaporating, canning, statistics of the fruit trade, fruit package laws, commission dealers and dealing, etc., etc. The important subjects of the fruit package and cold storage are especially

well and comprehensively treated.

The subject has been treated strictly from the standpoint of the fruit producer. The commission business, for instance, is thoroughly and fairly discussed, and the commission men can hardly help but be pleased with the advice given, yet it is all plainly directed to the benefit of the fruit grower. Evaporating and canning are handled in the same way—not by telling how to run a canning factory or a commercial evaporator—but by explaining those points which are of interest to the man who grows the fruit. The whole subject is tersely, plainly put and adequately illustrated. It is a book which everyone can read and enjoy, and which no fruit grower, large or small, can do without.

Illustrated, 5x7 inches, 250 pages. Cloth. Price, \$1.00

BY THE SAME AUTHOR

Plums and Plum Culture



COMPLETE manual for fruit growers, nurserymen, farmers and gardeners, on all known varieties of plums and their successful management. This new book marks an epoch in the horticultural literature of America. Plum culture is one of the most complicated of specialties; and Prof. Waugh is one of the best known of the specialists. So far from being a mere compilation of others' views, this work represents in an unusual degree the original discoveries of the author. Nevertheless the discoveries and practical experience of others have not been disre-The book is a complete monograph of the plums cultivated in and indigenous to North America. It will be found indispensable to the scientist seeking the most recent and

authoritative information concerning this group, to the nurseryman who wishes to handle his varieties accurately and intelligently, and to the cultivator who would like to grow plums successfully.

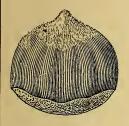
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The Nut Culturist

A Treatise on the Propagation, Planting and Cultivation of Nut-Bearing Trees and Shrubs

Adapted to the Climate of the United States

With the Scientific and Common Names of the Fruits Known in Commerce as Edible or Otherwise Useful Nuts

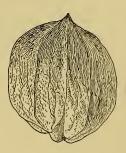


By ANDREW S. FULLER

AUTHOR OF

"Grape Culturist," "Small Fruit Culturist," "Practical Forestry," "Propagation of Plants," etc., etc.

PROFUSELY ILLUSTRATED



HEN it is considered that the United States sends abroad annually several millions of dollars to pay for various kinds of nuts imported from foreign countries the greater part of which could profitably be grown at home, it seems strange that so little attention has been paid by American farmers to the planting and raising of edible nuts. There has been a prevailing idea among our people that nut trees could not be grown easily, their cultivation and management requiring some unusual skill, and that failure stared those in the face who attempted to plant and raise nuts.

In Europe as much care and attention is given to the growing of nuts as to any kind of fruit trees, and the profits derived from them are, in some sections of continental Europe, greater than from any other class of trees. While it is not rare to see extensive nut orchards on plains and mountain sides, the principal and favored locations for them are along the public highways. Miles and miles of English walnuts and chestnuts line the roadsides, and the returns from them often go far to meet the expenses of local government.

Most of our native nut-bearing trees, as well as the English walnut, are remarkably handsome in appearance, which is another reason why they should replace many worthless kinds that are so frequently seen along our highways.

The author of this book has for many years made a careful study of the entire subject, and has given in this volume the results of his experiences and investigations. In successive chapters he treats upon the almond, beechnut castanopsis, chestnut, filbert, hickory, pecan and walnut, giving a condensed account of their history, description of all the species and varieties, together with their propagation by seed or otherwise; modes of grafting and budding, transplanting, pruning, gathering and marketing; insect and fungous enemies, and the best means of preventing their ravages; and all the important details in regard to the methods and practices for the successful and profitable raising of nuts. The closing chapter is devoted to the description of the fruits which are known in commerce as nuts, and to foreign kinds of nuts which are not grown successfully in the United States.

Over 100 original illustrations embellish the volume. This work its author has always considered as the most valuable one he has ever written, believing that it will develop a new and important industry for the benefit of American farmers and the prosperity of our country.

Illustrated, 5x7 inches, 298 Pages. Cloth. Price, \$1.50

The Small Fruit Culturist

By ANDREW S. FULLER



HIS is the first work exclusively devoted to Small Fruits, and it continues to be the recognized author-

innues to be the recognized authority. It is equally adapted to the needs and requirements of the private cultivator and the market grower.

This book covers the whole ground of Propagating Small Fruits, their Culture, Varieties, Packing for Market, etc. While very full on the other fruits, the Currants and Raspberries have been more carefully elaborated than ever before. The chapter elaborated than ever before. The chapter on gathering and packing the fruit is a valuable one, and in it are figured all the baskets and boxes in common use. The book is very finely and thoroughly illustrated.

"In the history of horticultural literature," writes Dr. F. M. Hexamer in the Cyclopedia of American Horticulture, "Fuller's Small Fruit Culturist will no doubt occupy a foremost rank. It was more instrumental in the development

and building up of the great industry to which it is devoted than any other book written before or after, and in any land; and it was the first American horticultural book translated into a foreign language."

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Chapter X.—Huckleberry
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Chapter XI.—Preparation
for Gathering Fruit

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By ANDREW S. FULLER

Containing the history, sexuality, field and garden culture of strawberries, forcing or pot culture, how to grow from seed, hybridizing, and all information necessary to enable everybody to raise their own strawberries; together with a description of new varieties and a list of the best of the old sorts.

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Irrigation Farming

A HANDBOOK FOR THE PRACTICAL APPLICATION OF WATER IN THE PRODUCTION OF CROPS

New Edition, Revised, Enlarged and Rewritten

By LUCIUS M. WILCOX

Since the publication of the first edition of "Irrigation Farming," so many important improvements in irrigation have been made, and new and better methods introduced, that in order to keep abreast with the times a new edition of this standard work has become a necessity. Realizing this need

the author has prepared the present volume, which has been largely rewritten, entirely reset, and considerably enlarged so as to present in systematic sequence and concise form everything pertaining to the most modern irrigation methods means, thus making it the most complete manual on the subject ever published. As the author has devoted the greater portion of his life to practical irrigation work, and is the recognized authority on the whole subject of irrigation, from a practical standpoint, every state-ment made in this book is based on the best experience, practice and science, and may be unhesitatingly relied upon as absolutely true.

One strong position taken by the author all through the work is the importance of consistent and scientific cultivation in connection with all irrigation operations, as the one is just as essential as the other, and the two are indispensable in attaining the most perfect results. While the first edition was primarily written for and adapted to our western farmers and farms, this new edition also devotes appropriate attention to irrigation in humid regions. The principal chapters treat very fully of the advantages of irrigation; relations of soils to irrigation; treatment



of alkali; water supply; canal construction; reservoirs and ponds; pipes for irrigation purposes; flumes and their structure; duty and measurement of water; methods of applying water; irrigation of field crops, the garden, the orchard, the vineyard and small fruits; all about alfalfa; windmills and pumps; devices, appliances and contrivances; subirrigation and subsoiling; seepage and drainage; electricity in irrigation; winter irrigation; irrigation in humid regions; common law of irrigation; glossary of irrigation terms, etc., etc. The volume is profusely, handsomely and practically illustrated, and in paper, presswork and binding all that could be desired.

5x7 inches, 494 pages. Cloth. Price, \$2.00

Land Draining

A Handbook for Farmers on the Principles and Practice of Farm Draining

By MANLY MILES, M.D., F.R.M.S.

Author of "Silos, Ensilage and Silage," etc.

NDER the present conditions of American farm practice, one of the most prominent defects in the prevailing system of management appears to be a lack of attention to thorough drainage as a means of diminishing the cost of production, and insuring uniformly remunerative returns in crop growing, by increasing the fertility of the soil and avoiding the losses from unfavorable seasons. The manifest neglect of this important branch of rural economy by the majority of farmers is undoubtedly owing, to a great extent, at least, to the frequent failures observed in draining, from the practice of imperfect methods, and vague or incorrect notions in regard to the real advantages to be derived from draining.

This is not surprising, as attention has been turned in other directions, and the most valuable contributions to the principles of drainage, of late years, have been confined, in the main, to periodicals and reports not generally accessible to farmers, and there has been no book on this special subject in which could be found a description of the best method of making tile drains, or an adequate discussion of the latest developments of science in their relations to the principles of drainage.

Many of the maxims in draining, of but a few years ago, have become obsolete, and more consistent methods have been adopted in the best modern practice, while the progress of science has extended our knowledge of correct principles, and made clear many details in regard to the most favorable conditions for growing crops, which are of great practical importance.

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An outline of the history of draining is given to illustrate the progress of discovery and invention in developing correct principles of practice; and the directions for laying tiles, which are the results of an extended experience in draining under widely different conditions, are confidently recommended as a decided improvement on former methods.

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CHAPTER I.—General Principles. CHAPTER II.—Water in Soils and Conservation of Energy. CHAPTER III.—Rainfall, Drainage and Evap-

oration.
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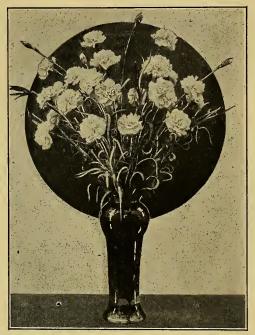
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houses are thoroughly discussed.

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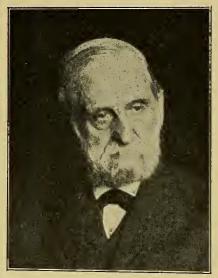
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Professor of Horticulture and Landscape Gardening, Massachusetts Agricultural College, Amberst, Mass.

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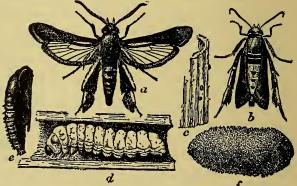
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Formerly professor of entomology and invertebrate zoology at the Maryland agricultural college and state entomologist, author of many special reports on economic topics, and late associate editor American Agriculturist weeklies.



OTHING of the kind has ever been printed before. It embodies years of careful research and practical application by the author, as well as the tests and experiences of others from all parts of the world. The fruit, nursery, floral and grain industries are confronted on every side with hordes of insect pests which threaten their very foundation. This important work tells just what to us and how to make the same that the same than the same just what to use and how to apply it to save serious losses from insects. The author has presented his subject in a popular style, free from technicalities.

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struction, management and methods of preparing young trees for treatment are given. The destruction of insects in greenhouses, mills, elevators, granaries, by following the directions given. Other chapters contain the opinions and methods of experts from every part of the world where the gas is used. The regulations of foreign governments regarding the importation of American plants, trees and fruits are described. A most useful part is devoted to the use of carbon bisulphid for the destruction of animal life below the surface of the ground, stored grain or other materials, and in places where hydrocyanic acid gas cannot be used.

Funigation Methods should be in the hands of every horticulturist and nurseryman as well as florists and others engaged in the propagation and distribution of plants

man as well as florists and others engaged in the propagation and distribution of plants in all parts of the world. Transportation companies, millers, grain dealers and brokers will find it the most careful and complete guide ever published. As a reference book on the subject of fumigation, college and experiment station workers as well as others engaged in scientific pursuits will find it useful and practical in every respect. Every detail in connection with apparatus has been fully illustrated and each charter is practically a monograph on the tonic presented. each chapter is practically a monograph on the topic presented.

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Farmer's Cyclopedia of Live Stock

By EARLY VERNON WILCOX Ph.D., and CLARENCE BEAMAN SMITH, M.S.

Assistant Editors in the Office of Experiment Stations, United States Department of Agriculture

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HIS is the greatest, most comprehensive and finest illustra-ted work on live stock raising ever published in this or any other country.

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TABLE OF CONTENTS Each Part An Authoritative Treatise

Each Part Au Authoritative Treatise
Part I. is devoted to general considerations and principles under the following heads: The Classification and Origin of Domestic Animals—
The Anatomy and Physiology of Domestic Animals—Animal Breeding—Principles of Stock Feeding—
Farm Hygiene—Diseases of Live Stock—Importance of Stock Farming in the Preservation of Soil Fertility and the Utilization of All Farm Crops—Systems of Stock Farming—Live Stock Associations—Institutions—Expositions and Fairs—Transportation and Marketing of Live Stock—Slaughtering and Curing of Meats—Refrigeration of Meats and Other Animal Products—Inspection of Meats and Milk as Related to Animal Industry.
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A Treatise on the manufacture of American Cheddar Cheese and some other varieties; intended as a textbook for the use of dairy teachers and students in classroom and workroom; prepared also as a handbook and work of reference for the daily use of practical cheese-makers in cheese-factory operations.

By LUCIUS L. VAN SLYKE, Ph.D.

Chemist of the New York Agricultural Experiment Station and

CHARLES A. PUBLOW, A.B., M.D., C.M.

Associate Professor of Dairy Industry in the New York State College of Agriculture at Cornell University

THE publishers have realized for some time the existence of an urgent call for a book on cheese-making which should be more than a mere recipe book. They are, therefore, gratified at being able to announce, in response to this demand, the publication of a work which represents both scientific and practical sides of cheese-making and which, in respect to authorship, has been prepared under unusually favorable auspices. Not only are the operations of cheese-making described in a clear, systematic and practical manner, but special attention is given to making prominent the reasons for each step.

During the past seventeen years, there has been great activity in the investigation of the cheese problems peculiar to America, but the results of this extensive work have been widely scattered through the reports of experiment stations and government departments. All this great mass of material has been carefully digested for this book and now for the first time becomes readily available to dairy students and

Dr. Van Slyke is well known as the author of our book, "Modern Methods of Testing Milk and Milk Products," which from the start has met with a phenomenal success. Three years ago he was selected by the Office of Experiment Stations, U. S. Department of Agriculture, to prepare a syllabus of lectures for a course in cheese-making, which was published as Bulletin No. 166. Dr. Van Slyke's reputation in connection with cheese-making has come mainly from the extensive investigations which have been carried on by him at the New York Agricultural Experiment Station at Geneva since 1890. These investigations have covered nearly every phase of interest and have been especially thorough in studying the chemical relations of milk and cheese.

Dr. Publow is pre-eminently qualified by training and experience to present the subject of cheese-making in its practical aspects. For six years he was a prominent and successful manufacturer of cheese in Ontario, Canada; for four years he held the position of Dairy Instructor and Sanitary Inspector for the Ontario Department of Agriculture, and for one year he was expert judge of all the butter and cheese going through Montreal to foreign markets.

We believe that this new book will be promptly recognized as the standard authority in the field which it covers. Dairy teachers, students and cheese-makers will appreciate that the work is an unusual contribution to dairy literature, containing a surprisingly large amount of new material, systematically arranged and clearly presented.

The following table of contents will serve to give some idea of the arrangement, scope, completeness and general character of this book.

I.—The Care of Milk for Cheese-Making.
II.—Preliminary Steps in Making Cheddar Cheese.
III.—Operations from Cutting Curd to Salting.
IV.—Operations from Salting Curd to Removal 11.—Operations from Salting Curd to Removal from Press.
V.—Moisture and Acidity in Curd and Cheese: Conditions, Effects and Control.
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VII.—Care, Shipment and Sale of Cheese.
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IX.—Cheese-Factory Construction.
X.—Cheese-Factory Equipment.
X.I.—Defects in Flavor.
XII.—Defects in Flavor.
XII.—Defects in Color and Finish.
XIV.—The Constituents of Milk.
XV.—Conditions Affecting Proportions of Constituents in Milk.
XVI.—Functions of Milk Constituents in Cheese-Making.

XVII.—Milk Constituents and Yield of Cheese.
XVIII.—Methods of Calculating Yield of Cheese.
XIX.—Milk Constituents in Relation to Composi-

XVII.—Milk Constituents in Relation to Composition of Cheese.

XX.—The Composition of Cheese in Relation to Quality.

XXI.—Wethods of Paying for Milk for Cheese—Making.

XXII.—The Relations of Micro-Organisms and Enzyms to Cheese-Making.

XXIV.—Chemical Changes in Cheese-Ripening.

XXVV.—Chemical Changes in Cheese-Ripening.

XXVI.—The Ripening of Cheese.

XXVI.—Chemical Changes in Cheese-Ripening.

XXVI.—Chemical Relations of Cheese-Ripening.

XXVI.—Chemical Relations of Cheese-Ripening.

XVII.—Wethods of Making Different Varieties of Cheese.

XXVII.—Methods of Testing Used in Cheese-Making.

XXIX.—Cheese-Factory Organization and Management. ment.
XXX.—The Literature of Cheese-Ripening

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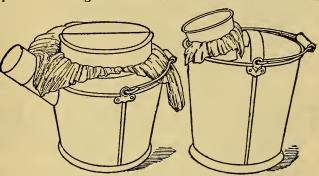
Practical Dairy Bacteriology

A complete exposition of important facts concerning the relation of bacteria to various problems related to milk. A book for the classroom, laboratory, factory and farm. Equally useful to the teacher, student, factoryman, and practical dairyman.

By DR. H. W. CONN, Wesleyan University

THE development of dairy bacteriology has been very rapid in the last ten years. Beginning first as a subject of scientific interest only, the study of the bacteria in milk has proved to be of vital importance, not only to the dairyman, but to all persons who have an interest in public health problems. In the last few years there has developed in our large cities a keen interest in the bacteria

of the city milk supply. Today there is no more important subject affecting the milk producer, distributor or consumer than their relations to the bacteria of milk,



and public health officials are also recognizing the subject as one of which they must take cognizance. All dairy students to-day must learn the facts which are known, and no dairy course is complete without a full consideration of this subject.

This book is designed to meet this growing demand. It consists The first is a general discussion of all phases of bacteria associated with milk products and their relation to public prob-The second is an outline of a series of experiments for students, so designed that one who has been through them will not only have a practical knowledge of bacteria and bacteriological methods, but will be able to carry out all the work of bacteriological analysis of milk products that may be needed either in a dairy, a creamery, or a sanitary laboratory. The book is thus especially adapted to meet the needs of students in dairying, or any to whom a practical knowledge of bacteriological methods as relating to milk is of value. The book is strictly up-to-date and contains the most recently determined facts in the newest methods. It represents the rounding out of the ripe experience of Dr. Conn. No classroom, laboratory or library will be complete without it.

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First Lessons in Dairying

By HUBERT E. VAN NORMAN

Professor Dairy Husbandry, School of Agriculture, Pennsylvania State College

THIS splendid little book has been written from a practical point of view to fill a place in dairy literature long needed. It is designed primarily as a practical guide to successful dairying, an elementary textbook for colleges and for use especially in short course classes. It embodies underlying principles involved in the handling of milk, delivery to factory, shipping station and the manufacture of butter on the farm. It is written in a simple, popular way, being free from technical terms and is easily understood by the average farm boy. It is adapted to meet farm conditions, explains reason why, covers the relationship of bacteriology and chemistry, the foundation sciences of modern dairying, besides treating fully ordinary conditions found on the farm and in the dairy. In fact, it answers the questions in detail which confront the practical dairyman daily. It covers those necessary details regarding secretion of milk, methods of cooling, creaming, cream ripening, churning, turning, working and packing the finished product for market. Practical details involved in the marketing of milk and cream are given. The use of the Babcock test is illustrated and fully explained. The book is just the thing for the everyday dairyman and should be in the hands of every farmer in the country.

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PROFITABLE DAIRYING

A Practical Guide to Successful Dairy Management
By C. L. PECK

THE introductory chapter of this book consists of a minute description of the far famed model dairy farm of Rev. J. D. Detrich, near Philadelphia, Pa. Never perhaps has the description of any farm caused a more profound sensation in the agricultural world. This article, which originally appeared in American Agriculturist, is out of print and no longer obtainable; it is reprinted herewith by numerous requests. On this farm of 15 acres which 20 years ago could not maintain one horse and two cows, there were kept 27 dairy cattle, in addition to two horses. All the roughage, litter, bedding, etc. necessary for these animals was grown on these 15 acres, more than most farmers could accomplish on 100 acres. A description of this plain, unpretentious little farm sounds almost like a fairy tale, and yet it is nothing but plain, clear facts of the truth of which anyone can convince himself.

The author of this volume is a well known, practical dairyman, who has made dairying a marked success and who, in this volume, gives such practical hints on dairying as will enable the reader to improve his methods, better his conditions and more nearly attain that point in business known as success. The treatment of the entire subject is thoroughly practical in every detail, being principally a description of the methods practiced by the author, and which after a lifetime of experience and study he has found most advantageous. Yet the scientific bearing on the subject has not been neglected, as the author has availed himself of all the most recent discoveries and advancements in science, thus making the work authoritative, practically as well as scientifically.

thus making the work authoritative, practically as well as scientifically. Separate chapters are devoted to the importance of the dairy, physiology and secretion of milk, future of dairying, dairy breeds, selection of a breed, the dairy cow and the dairy sire, dairy standard, care and feed of the dairy cow, care of the calf, milking, when to have cows come fresh, feeds and their value, care of the milk, device for ripening cream, churning, marketing dairy butter, the dairy barn, silo and silage, miscellaneous topics, necessary appliances, general hints, dairy remedies.

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The Business of Dairying

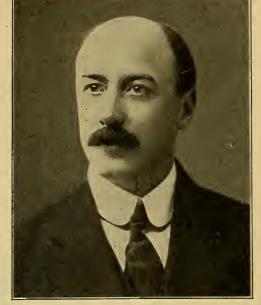
By CLARENCE B. LANE, B.S.

Assistant Chief Dairy Division U. S. Department of Agriculture

HE author of this practical little book is to be congratulated on the successful manner in which he has treated so important a subject. It has been prepared for the use of dairy students, producers and handlers of milk and all who make dairying a business. Its purpose is to present in a clear and concise manner various business methods and systems which will help the dairyman to reap greater profits.

While much has been written on the subject of dairying, there is a lack of simple, practical, common-sense information. This book meets the needs of the average dairy farmer and if carefully followed will lead to successful dairying. It may also be used as an elementary textbook for colleges and especially in short course classes.

The average farmer is not a business man. There is no reason why he should not be. book aims to teach the dairy farmer that his occupation must



be conducted on business principles and that in his business, as in any other, an accurate account of receipts and expenditures must be kept in order to determine where profits are made or losses occur. Simple methods for keeping these records and accounts of all kinds needed on the farm have been presented and in as many instances as possible the forms and methods themselves have been used instead of descriptions of them.

No book has been written which touches on so many practical phases of

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Under Part V dairy products are discussed and the best methods of handling them, from cow to consumer. Particular attention is given to the market milk producer and to problems in sanitation. The importance of winter dairying is also given attention

Part VI. Sales. Business methods in retailing milk, simple forms of accounts, etc., are carefully described, also the comparative profits from the sale of different dairy products. Advertising and bookkeeping on the farm are also treated.

Part VII deals with many subjects which affect the dairyman's profits.

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A Handbook Prepared for the Use of Dairy Students, Butter-Makers, Cheese-Makers, Producers of Milk, Operators of Condenseries, Managers of Milk Shipping Stations, Milk Inspectors, Physicians, etc., etc.

By LUCIUS L. VAN SLYKE

Chemist of the New York Agricultural Experiment Station



THIS book should be in the hands of every dairyman, teacher, and student. It contains a comprehensive discussion of the chemistry of cow's milk, embodying the most recently developed facts. The numerical data given are fresh and largely at first hand, representing American conditions, instead of being stale, miscellaneous data taken from European sources, so much of which has little application or value for American dairymen. Some errors that have been long incorporated in dairy literature on the composition of milk are here corrected. The publishers are aware that the author's long-continued study of the chemistry of milk has

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The various methods of testing milk and its products are brought up to date; they are presented in the most concise manner that is consistent with completeness, clearness, and accuracy; irrelevant matter is omitted. The aim has been to include all necessary material and omit all that is unnecessary.

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The chapter on the "Arithmetic of Milk and Milk Products" is another desirable feature of the book which will prove exceedingly helpful to every dairy teacher, student, and worker. We believe that the general arrangement of the material in this book is one that will meet the approval of those who

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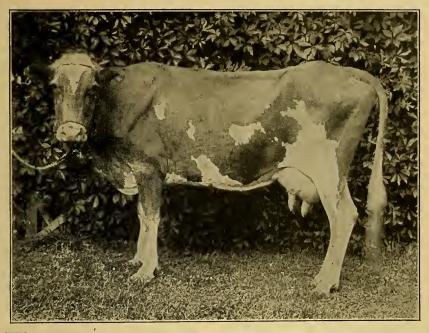
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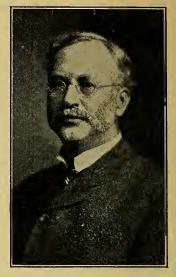
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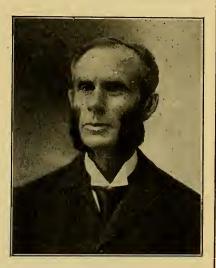
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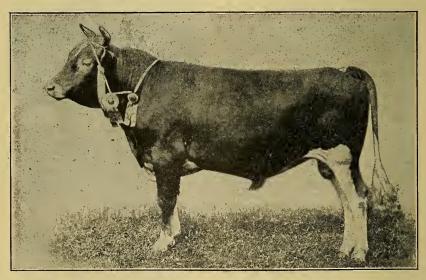
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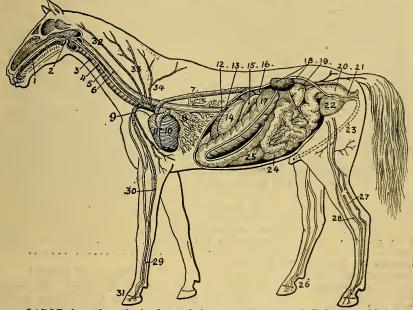
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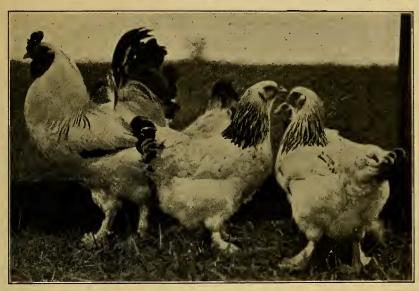
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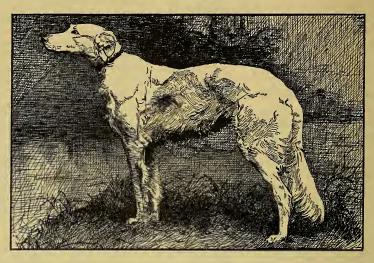
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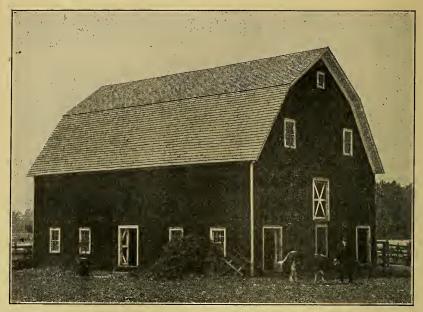
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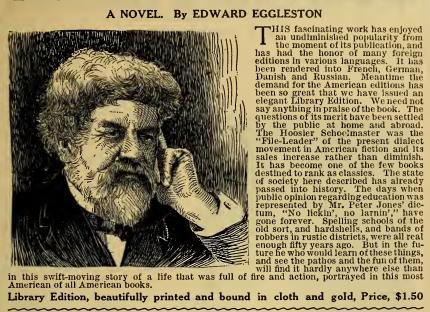
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By R. L. WATTS

This complete, concise and authentic book covers every phase of vegetable gardening and is specially well organized as a text-book and equally valuable as a hand-book for practical growers. The author is the well-known teacher and practical market gardener Ralph L. Watts, Professor of Horticulture in the Pennsylvania State College. This book is the only volume on vegetable gardening the scheme of which is in accordance with the recommendations of the association of American agricultural colleges. The logical and systematic arrangement of the matter enhances the value of the book for students as well as for busy commercial growers who need a well-organized treatise for frequent reference.

The bulletins of the experiment stations of the United States Department of Agriculture and various books and periodicals relating to garden crops were frequently consulted during the preparation of the manuscript, while at the same time the experience of successful growers is woven into every chapter. The book brings up to date the most reliable information on vegetable gardening and the full discussion of principles makes it valuable to all classes of growers whether they are producing for the home table or for market. To procure first-hand knowledge regarding varieties and methods, many market gardens and truck gardens were visited in different parts of the United States. This made it possible to obtain photographs which have been used freely to illustrate the various chapters.

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An idea of the scope and completeness of the book may be gained by noting the following subjects, each of which has been treated in a separate chapter: A General View, Selection of Location, Soils, Tillage, and Tillage Tools, Stable Manures, Green Manures and Cover Crops, Commercial Fertilizers, Irrigation, Insect Enemics and Fungous Diseases, Seeds and Seed Growing, Construction of Hot-beds, Construction of Cold Frames, Construction of Greenhouses, Seed Sowing, Transplanting, Growing Early Vegetable Plants Under Glass, Marketing, Co-operative Associations, The Storage of Vegetables, and the Classification of Vegetables.

One-half the book is devoted to a discussion of the culture of the vegetables grown in the United States and Canada. The list includes the Articloke, Bean, Beet, Brocoli, Brussels Sprouts, Cabbage, Carrot, Cauliflower, Celery, Chard, Chickory, Chive, Collard, Corn-salad, Cress, Cucumber, Dandelion, Dill, Eggplant, Endive, Garlic, Horse-Radish, Kale, Kohl-rabi, Leek, Lettuce, Mint, Muskmelon, Mustard, Okra, Onion, Parsley, Parsnip, Pea, Pepper, Pumpkin, Radish, Rhubarb, Ruta Baga, Sage, Salsity, Savory, Spinach, Squash Sweet Corta, Sweet Potato, Thyme, Tomato, Turnip, and Watermelon. There are also chapters on Crop Rotation, Succession and Companion Cropping, and Home Vegetable Garden and Suggestions on Laboratory Work. Profusely Illustrated. 5½ x 8 inches. 550 pages. Cloth. Net \$1.75.

Fertilizers and Crops

OR

The Science and Practice of Crop-Feeding

By DR. LUCIUS L. VAN SLYKE, Chemist of the New York Agricultural Experiment Station

This new book is a timely presentation of facts not only giving practical methods for using fertilizers in crop growing, but placing special emphasis on the reasons underlying their use and on the conditions of the greatest efficiency. It has been prepared for the use of students in agricultural schools and especially for the larger class of students directly and vitally interested in the growing of crops.

During the past ten years, many books have been published relating to soils, crop growing and fertilizers, each treating some special, limited phase; but the publishers have felt for some time that there has been an increasing need of a book different from any of those that have yet appeared. This book is the result of an effort to meet such a demand. At no time in the history of this country has the growing of crops attracted so wide and intense interest as at the present and at no time has there been such eager luquiry for reliable, up-to-date information among progressive farmers. An examination of the book shows that the author has kept in mind the fact that a work treating of the practical use of fertilizers on the farm should be something more than a mere collection of recipes glving the number of pounds of different fertilizing materials to use for this or that crop. The book has been written from the standpoint that, while plant-foods constitute a most important factor in crop growing, there are other vital factors as well which directly affect or control the effectiveness with which a crop utilizes the plant-food furnished it.

The first part of the book covers the factors of soll fertility. This consists of twelve chapters and treats of the relations of plant-food to soil fertility. It discusses, (1) essential plant-food constituents, what they are, where they come from, what particular effects they have in the growth of plants; (2) how plants take and use their food; (3) how plant-foods are lost and gained by soils; (3) the relations of microorganisms to plant-foods; (4) the relation of water to soils and crops; (5) brief outlines of methods of soil management for the purpose of enabling plants to use their foods most efficiently.

The second part of the book covers the sources and composition of materials used as fertilizers. This consists of eight chapters and gives a full discussion of the various materials used as sources of plant-food. The new fertilizing materials that have only recently come into use are given careful attention. Of special practical value and fullness are the two chapters treating of the composition, changes, care, value and use of farm manure. The subject of green-crop manures is given detailed attention. Of special interest at this time is the very complete discussion of the use of lime on solls.

The third division of the book, factors in the selection of fertilizing materials, contains six chapters and furnishes a large amount of practical information, which will enable farmers to select fertilizing materials for use in crop growing on the basis of greatest suitability, feeding efficiency and economy of cost. Such subjects as the availability of different forms of plant-food materials, when to use commercial fertilizers, what to use, effects of fertilizers upon soils, adaptation to crops, comparative cost in different forms, various phases of commercial fertilizers, with their advantages and disadvantages, home mixing,—are all fully discussed from the standpoint of a farmer seeking helpful information. The principles of crop-rotation are treated in connection with the selection of fertilizers to use.

The fourth part of the book, practical use of fertilizers in the growing of individual crops, is the one to which the practical farmer will probably turn first. The treatment of the methods of using fertilizers is properly conservative but abreast of the most recent developments. The preceding portions of the book form a complete preparation to enable one to make use of this last part in the most intelligent, rational and efficient way. The treatment of the different crops in relation to the use of fertilizers is more complete than in any other book yet published. For example, we have nowhere seen the subjects of orchard crops, greenhouse crops, nursery crops, etc., discussed with such a degree of fulness and appreciation of practical relations, and the same is true of the other chapters.

Taken as a whole, this book contains an immense amount of detailed information, systematically arranged, clearly presented, very full and up-to-date. It is adapted to meet the needs of students who desire to obtain a good chemical knowledge of the subject, as well as to the use of farmers, who care only for the practical applications. The teachings of the author are conservative and are based on a broad consideration of all factors entering into the problems discussed.

Illustrated, 5½x7½ inches. 500 pages. Cloth. Net \$2.00